

BOARD OF FIREFIGHTING PERSONNEL STANDARDS AND EDUCATION

Investigator I

Sample Test



7/10/15

Fire Investigator

1. NFPA 1033, Standard for Professional Qualifications for Fire Investigator, 2009 Edition
2. NFPA, Guide for Fire and Explosion Investigations, NFPA 921, 2004 Edition
3. Jones and Bartlett, Fire Investigator Principles and Practice to NFPA 921 and 1033, 3rd ed.

1. Preconceived determination or premature conclusions as to the cause or origin of the fire are considered:
 - A. proactive.
 - B. preemptive.
 - C. expectation bias.
 - D. experience bias.
2. Early in an investigation multiple hypothesis of the cause of a fire are developed and are referred to as _____ hypotheses.
 - A. fragment
 - B. working
 - C. temporary
 - D. phase
3. If a K-9 unit discovers possible indications of a substance at a fire scene, the fire investigator should:
 - A. document that location with photographs and drawings.
 - B. notify ATF for their assistance in the investigation.
 - C. look for gas cans or other types of containers at the scene.
 - D. take samples of the area and have them tested at a lab.
4. During an investigation the investigator needs to identify the events that brought the ignition source and the fuel together. This is known as:
 - A. hypothesis.
 - B. chain of evidence.
 - C. ignition sequence.
 - D. motivation.
5. Efforts to intentionally damage or destroy a fire protection or detection system are known as:
 - A. sabotage.
 - B. arson.
 - C. obstructionism.
 - D. felony hindrance.
6. The final report produced from an investigation must meet the:
 - A. NFPA 921 standard to be acceptable in court.
 - B. requirements of the court that will hear the case.
 - C. NFPA 1033 guidelines, Appendix B.
 - D. requirements of the jurisdiction of the investigator.
7. The top of the page of most drawings or sketches is which compass orientation?
 - A. North
 - B. East
 - C. West
 - D. South
8. Why does it take more heat energy to start a 4 × 4 piece of wood on fire than it does dust?
 - A. The 4 × 4 has a higher surface-to-mass ratio, so it will start faster.
 - B. Dust requires more energy because of the density of the fuel.
 - C. The 4 × 4 is able to dissipate the heat faster, which affects its ability to ignite.
 - D. The density of the wood affects the amount of BTUs released by the thicker wood.

9. Inductive reasoning is most often used during the _____ step of the scientific process during a fire investigation.
- A. fifth
 - B. sixth
 - C. first
 - D. third
10. Which type of questions is the most effective or works best when conducting an interview with a witness?
- A. Closed-ended
 - B. Open-ended
 - C. True-false
 - D. Yes-no
11. When considering the geometry of a room and fire development which of the following is the MOST important factor to take into consideration?
- A. Distance of the walls from each other
 - B. Height of the ceiling in the room
 - C. Distance between windows and doors
 - D. Distance between the top of the windows and the ceiling
12. Which of the following statements is CORRECT concerning photographing a fire scene?
- A. Black-and-white photographs are most effective for a fire scene.
 - B. The person who took the photographs is usually not the same person who presents them in court.
 - C. The best lighting to use on a fire scene is natural light.
 - D. Recording a scene should happen early and often during the investigation.
13. The NFPA document used to qualify/certify fire investigators is:
- A. NFPA 921.
 - B. NFPA 1031.
 - C. NFPA 1033.
 - D. NFPA 1035.
14. The most common combustible explosions are those caused by the burning of _____ fuels.
- A. dust/particle
 - B. hydrocarbon
 - C. oxidizing
 - D. carbon
15. Which of the following is a common characteristic of young firesetters?
- A. Poor grades in school
 - B. Outspoken behavior at home and school
 - C. Broken home/family environment
 - D. Smokes in the home
16. Fuel that escapes from a fuel delivery system through containers or piping is referred to as:
- A. expendable fuel.
 - B. lost gas.
 - C. disposable fuel.
 - D. fugitive gas.

17. Which of the following fuels has the LOWEST flammability limit (LFL)?
A. Hydrogen
B. Natural gas (methane)
C. Propane
D. Phosgene
18. What material is used in the canister used on emission control systems that collects excess fuel vapors?
A. Treated paper
B. Charcoal
C. Carbon fiber
D. Nylon mesh
19. In a residential home the local electrical source is provided by the:
A. transformer.
B. electrical meter.
C. service panel.
D. power lines.
20. Factors such as heat source and conditions that result in a fire fit into which "cause" classification?
A. Cause of the fire or explosion
B. Cause of bodily injury or loss of life
C. Degree of human involvement
D. Cause of damage to property
21. Events that are particularly valuable as a foundation for the timeline or that may have significant relation to the cause or discovery of the fire are referred to as:
A. estimated times events.
B. soft times events.
C. distinguishing events.
D. benchmark events.
22. Which of the following is it most difficult to identify the ignition source for?
A. Wood chips
B. Grain dust
C. Moving liquids
D. Vapors
23. Which age group is affected the most during an emergency?
A. Middle-age adults
B. Teenagers
C. Very young and very old
D. All age groups are affected during an emergency.
24. Where would an investigator find spalling on a wildland fire?
A. Surface of trees
B. Surface of bushes
C. Surface of rocks
D. Surface of mineral soil
25. Which one of the following types of construction is used in a majority of modern wood-frame construction?
A. Balloon frame
B. Post and frame
C. Plank and beam
D. Platform frame